

ABSTRACT OF THE DISCLOSURE

A multi-link receiving mechanism (MRM) is disclosed comprising a plurality of receivers. Each receiver receives a separate data stream, and all receivers receive the same clock signal. The data streams may arrive at the MRM out of alignment relative to each other (i.e. may have inter-pair skew), and the clock signal need not be aligned with any of the data streams. In response to the clock signal and the data stream, each receiver delays the clock signal by a variable delay to derive a reference signal. This is done to achieve a desired relative alignment between the data stream and the reference signal.

Once the reference signal is derived, it is used by the receiver to generate a plurality of latching control signals. These latching control signals are thereafter used by the receiver to latch all of the data units of the data stream. Data from the data stream is thus recovered. Each of the receivers operates in the manner described to recover data from each of the data streams. Because each receiver individually adjusts for the varying alignments of the various data streams, the MRM is able to accommodate and properly process data streams with inter-pair skew.